Amendment dated December 2, 2009

Reply to Office Action of September 2, 2009 Docket No. BOC9-2003-0036 (405)

Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the

instant application:

Listing of Claims:

1. (Currently Amended) A method of bi-directionally communicating physical

human interactions between users over a communications network comprising:

performing [[an]] a first action on a first model by a first user located at a sending

first interaction system, said first interaction system including one or more sensors, one or more actuators, and a first message transmission module, said first model representing

at least a portion of a human body including at least one among a human head, a human

face, a human back and an entire human body, wherein said first model incorporates one

or more sensors disposed at various portions or locations within or on the first model, and

wherein the first action of the first user includes at least one body movement of the first

user and a change in facial expression of the first user, and wherein the at least one body

movement and the change in facial expression are selectable by the first user through a

visual interface;

detecting portions or locations within or on the first model to which the first user

applied force and an amount of force applied over time by each sensor, each sensor being configured to generate and send data to the first message transmission module when a

force is detected, the generated data specifying a $\frac{1}{2}$ time $\frac{1}{2}$ the force $\frac{1}{2}$ detected,

the amount of the force detected, and the body part portion or location within or on the

first model to which the force was applied;

the first message transmission module collecting and analyzing the data generated

by each sensor and determining the first action intended by said first user;

the first message transmission module converting the data to markup language

formatted data and encoding the data into one or more messages for transmitting the

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determined action over the communications network to a receiving second interaction

system, said second interaction system being communicatively linked with the first interaction system via the communications network, said second interaction system

including one or more sensors, one or more actuators, and a second message transmission

module;

the second message transmission module receiving and interpreting the one or

more messages by processing the markup language formatted data encoded in the one or

more messages the receiving system to determine the first action specified by the one or

more messages; and

simulating the first action by performing said first action on a second user at the

receiving second interaction system using a second model by activating one or more

actuators incorporated in the second model, said second model representing at least said

portion of said human body;

performing a second action on the second model by the second user in response to

the first action, wherein said second model incorporates one or more sensors disposed at

various portions or locations within or on the second model;

generating data from activated sensors within or on the second model specifying

the second action and send the data to the second message transmission module;

the second message transmission module collecting and analyzing the data generated by each of the activated sensor within or on the second model and determining

the second action intended by said second user;

the second message transmission module converting the data to markup language

formatted data and encoding the data into one or more messages for transmitting the

determined second action over the communications network to the first interaction

system; and

simulating the second action by performing said second action on the first user at

the first interaction system using the first model, wherein said first model incorporates the

one or more actuators.

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2-4. (Cancelled).

5. (Currently Amended) The method of claim [[4]] 1, wherein the markup language

formatted data specifies at least one actuator movement to be implemented by the second

model at the receiving system and an amount of force to be applied in the at least one

actuator movement.

6-7. (Cancelled).

8. (Original) The method of claim 1, said simulating step further comprising the step

of translating the action into instructions for activating at least one actuator; and

activating the at least one actuator in accordance with the instructions.

9-22. (Cancelled).

23. (Previously Presented) The method of claim 1, wherein said generated data

specifies a time when a force was detected, the amount of said force, and a location on

said human body to which said force was applied.

24. (Previously Presented) The method of claim 1, wherein said action intended by

said first user includes at least one among an embrace, a slap on the back, and a pat on

the back.

25-27. (Cancelled).

28. (Previously Presented) The method of claim 1, further comprising:

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providing a graphical user interface, within said graphical user interface said first

user can select human actions or processing tasks, wherein said human actions include at

least one among "touch the face", "touch arm", and "embrace" and said processing tasks

include at least one of "opening an audio channel" and "opening a video channel".

29-30. (Cancelled).

31. (Currently Amended) A system for bi-directionally communicating physical

human interactions between users over a communications network comprising:

a first interaction system and a second interaction system communicatively linked

via the communications network;

wherein the first interaction system includes:

a first model upon which an a first action is performed by a first user

located at a sending system, the first model representing a portion of a human

body representing at least one among a human head, a human face, a human back

and an entire human body;

at least one sensor disposed at various portions or locations within or on

incorporated in the first model and configured to detect physical movement of the

first user, wherein the physical movement of the first user includes at least one

body movement of the first user and a change in facial expression of the first user,

wherein portions or locations within or on the first model to which the first user

applied force and an amount of force applied over time [[is]] \underline{are} detected by each

sensor, each sensor being configured to generate and send data when a force is

detected, the generated data specifying a time during of the force was detected, the

amount of force detected, and the body part portion or location to which force was

applied;

means a first message transmission module for collecting and analyzing the

data generated by each sensor and determining the first action intended by the first

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user: means, and for converting the data to markup language formatted data and

encoding the data into one or more messages for transmitting the determined first

action over the communications network to a receiving the second interaction system, wherein the first message transmission module has a visual interface

through which the first user can select the at least one body movement and the

change in facial expression; and

at least one actuator incorporated within or on the first model to simulate

any action received at the first interaction system via the communications

network;

the second interaction system includes:

means a second message transmission module for receiving and

interpreting the one or more messages by the receiving system to determine the

first action specified by the one or more messages; and

a second model incorporating at least one receiving actuator configured to

simulate the first action to a second user at the second interaction system #

receiving location, the second model representing at least the portion of the human

body; and

at least one sensor disposed at various portions or locations within or on the

second model, wherein the at least one sensor detects a second action of the

second user in response to the first action.

32. (Currently Amended) A computer readable storage medium, having stored thereon

a computer program having a plurality of code sections executable by a machine for

causing the machine to perform the steps of:

performing [[an]] a first action on a first model by a first user located at a sending

first interaction system, said first interaction system including one or more sensors, one

or more actuators, and a first message transmission module, said first model representing

at least a portion of a human body including at least one among a human head, a human

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face, a human back and an entire human body, wherein said first model incorporates one

or more sensors disposed at various portions or locations within or on the first model, and wherein the first action of the first user includes at least one body movement of the first

user and a change in facial expression of the first user, and wherein the at least one body

movement and the change in facial expression are selectable by the first user through a

visual interface;

detecting portions or locations within or on the first model to which the first user

applied force and an amount of force applied over time by each sensor, each sensor being

configured to generate and send data to the first message transmission module when a

force is detected, the generated data specifying a time duration of the force was detected, the amount of the force detected, and the body part portion or location within or on the

first model to which the force was applied;

the first message transmission module collecting and analyzing the data generated

by each sensor and determining the first action intended by said first user;

the first message transmission module converting the data to markup language

formatted data and encoding the data into one or more messages for transmitting the

determined action over a communications network to a receiving second interaction

system, said second interaction system being communicatively linked with the first

interaction system via the communications network, said second interaction system

including one or more sensors, one or more actuators, and a second message transmission

module;

the second message transmission module receiving and interpreting the one or

more messages by processing the markup language formatted data encoded in the one or

 $\underline{\text{more messages}}$ the receiving system to determine the $\underline{\text{first}}$ action specified by the one or

more messages; and

simulating the first action by performing said first action on a second user at the

receiving second interaction system using a second model by activating one or more

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actuators incorporated in the second model, said second model representing at least said portion of said human body:

performing a second action on the second model by the second user in response to the first action, wherein said second model incorporates one or more sensors disposed at various portions or locations within or on the second model:

generating data from activated sensors within or on the second model specifying the second action and send the data to the second message transmission module;

the second message transmission module collecting and analyzing the data generated by each of the activated sensor within or on the second model and determining the second action intended by said second user;

the second message transmission module converting the data to markup language formatted data and encoding the data into one or more messages for transmitting the determined second action over the communications network to the first interaction system; and

simulating the second action by performing said second action on the first user at the first interaction system using the first model, wherein said first model incorporates the one or more actuators.